

Roll No.

BCA–E502(DE2)

B. C. A. (Fifth Semester)

EXAMINATION, 2023-24

ADVANCE JAVA

Time : $2\frac{1}{2}$ Hours

Maximum Marks : 60

Note : All questions are compulsory.

Section—A

1. Multiple Choice Questions : 1 each

(i) Which is the correct hierarchy in JavaFX application ? (CO3, BL-2)

(a) Scene → Scene Graph → Stage

(b) Stage → Scene → Scene Graph

(c) Scene Graph → Scene → Stage

(d) None of the above

P. T. O.

- (ii) In JSP Out is an object of which of the below class : (CO3, BL-2)
- (a) JspWriter
 - (b) System
 - (c) Print
 - (d) System Writer
- (iii) What is bean in Spring ? (CO4, BL-2)
- (a) A component
 - (b) An Object
 - (c) A class
 - (d) A container
- (iv) Prism is (CO3, BL-2)
- (a) an open graphics library
 - (b) a web engine
 - (c) a high performance hardware-accelerated graphical pipeline
 - (d) a media engine
- (v) Spring is licensed under : (CO5, BL-2)
- (a) GNU
 - (b) Apache License 2.0
 - (c) GNU Lesser General Public License
 - (d) Open source

(vi) Select which is not a directive ? (CO2, BL-2)

- (a) include
- (b) page
- (c) export
- (d) useBean

(vii) Who developed Struts Framework ? (CO4, BL-2)

- (a) Craig McClanahan
- (b) Mike Sherdon
- (c) Gavin King
- (d) Mike Youngstrom

(viii) Full form the term POJO. (CO3, BL-1)

- (a) Plain Old Java Object
- (b) Performance Old Java Object
- (c) Performance Optimize Java Object
- (d) None of the above

(ix) Struts supports which of these model components ?

(CO3, BL-1)

- (a) JavaBeans
- (b) EJB
- (c) CORBA
- (d) All Mentioned above

(x) Cookie remain even after the web browser is closed. (CO1, BL-2)

- (a) Session
- (b) Third-Party
- (c) Permanent
- (d) All of them

(xi) Full form the term OGNL : (CO3, BL-1)

- (a) Object-Goal Navigation Language
- (b) Oriented- Graph Navigation Language
- (c) Oriented-Graph Navigation Language
- (d) Object- Graph Navigation Language

(xii) Spring is referred as Framework of Frameworks.

(CO5, BL-1)

- (a) True
- (b) False

2. Attempt any *four* of the following : 3 each

- (a) Explain the life cycle of JSP and create a diagram for the same. (CO1, BL-6)
- (b) Create a program for hit counter in a web application. (CO2, BL-6)

- (c) Discuss various features of JavaFX and how it's better than Swing ? (CO3, BL-4)
- (d) Create a program to display the Rectangle in JavaFX. (CO2, BL-6)
- (e) Discuss features of Struts2 framework. (CO3, BL-5)

Section—B

- 3. Attempt any *two* of the following : 6 each
 - (a) Create a web application to connect the Java Servlet with MySQL and insert the values for the following fields using HTML and Servlet (S_id, S_Name, S_Address, S_mobile) . (CO1, BL-6)
 - (b) Discuss the architecture of JavaFx and create a diagram for the same. (CO3, BL-6)
 - (c) Discuss the Exception Handling in JSP and create a program for the same. (CO1, BL-6)
- 4. Attempt any *two* of the following : 6 each
 - (a) What are various Implicit objects supported by JSP ? Create a program using any two of them. (CO2, BL-6)

- (b) Why Spring is referred as Framework of Frameworks. Discuss the various features of Spring. (CO5, BL-6)
 - (c) Discuss the benefits of JavaFx. Create a Arc using JavaFx 2D library. (CO3, BL-6)
5. Attempt any *two* of the following : 6 each
- (a) Discuss various session management techniques supported by Servlet. Write a program using any of them. (CO1, BL-6)
 - (b) Discuss the life cycle of the Servlet with a suitable diagram. (CO1, BL-6)
 - (c) Discuss the struts features and Struts2 work- flow with example. (CO3, BL-6)